ORMS Undergraduate Student Learning Goals

All Operations Research and Management Science graduates are expected to acquire the following general skills and knowledge:

- Ability to apply mathematics and science to the solution of societal problems,
- Ability to design and conduct experiments, analyze, and interpret data,
- Ability to design system and operating policies to meet desired needs,
- Ability to function on multi-disciplinary teams and communicate effectively,
- Ability to identify, formulate, and solve societal system problems,
- Understanding of professional and ethical responsibility,
- Recognize the need for and ability to engage in life-long learning,
- Knowledge of contemporary issues, and
- Ability to use techniques, skills, and modern tools in practice.

The ORMS (Operations Research and Management Science) program has four possible concentrations:

- Decision Making in Economic Systems
- Decision Making in Industrial and Service Systems
- Decision Making in Societal Systems
- Algorithmic Decision Making

The ORMS major in the IEOR Department has four general objectives for the Bachelor of Arts degree program. We aim for our BA degree graduates to become skilled in:

- Quantitative modeling and analysis of a broad array of systems-level decision problems concerned with economic efficiency, productivity, and quality,
- Development and creative use of analytical and computational methods for solving these problems,
- Collection and analysis of data and the use of database and decision-support tools, and
- Comprehension and analysis of risk and uncertainty.

In addition, we expect our graduates will obtain the broader skills, background, and knowledge necessary to be effective life-long professionals who understand the impact of systems in a societal context in a rapidly changing global economy.

Specific outcomes of the BA degree program are as follows. Graduates will be able to:

- Develop their scientific and quantitative, model building, and problem solving skills through core courses in mathematics, statistics, operations research, and management sciences.
- Learn how to apply these skills and tools effectively for operational, tactical, and strategic decisions in scientific solving problems in an area of their choice
- Pursue graduate study in Operations Research and the Management Sciences.